

CLAIMS:

1. A circuit (8) for a data carrier (7),
which circuit (8) has terminals (C1-Cn) for connection to at least part of a contact interface (11), via which contact interface (11) a circuit part (12) of the circuit (8) can be supplied with electrical energy, and
5 which circuit (8) has the circuit part (12), which circuit part (12) is designed to process data signals (DS1, DS2) in a normal-consumption processing mode and in an energy-saving processing mode in which less energy is required than in the normal-consumption processing mode, and which circuit part (12) can be switched into the energy-saving processing mode when energy is being supplied via the contact interface (11) and which
10 circuit part (12) can be switched, with the aid of a first mode change signal (MC1) that can be fed thereto, from the energy-saving processing mode into the normal-consumption processing mode, and
15 which circuit (8) has terminals (Cx, Cy) for connection to at least part of a contactless interface (23), via which contactless interface (23) a carrier signal (TS) can be received by the circuit (8), and
20 which circuit (8) has mode change signal generation means (24) which are connected to the contactless interface (23) and the circuit part (12) and are designed to detect receipt of the carrier signal (TS) via the contactless interface (23) and, upon detection of the receipt of the carrier signal (TS), to generate the first mode change signal (MC1) and output the generated first mode change signal (MC1) to the circuit part (12).

2. A circuit (8) as claimed in claim 1, wherein the mode change signal generation means (24) have a carrier signal frequency detection stage (25), to which the received carrier signal (TS) can be fed, and are designed, taking account of the frequency of the received carrier signal (TS), to detect receipt of the carrier signal (TS) and to generate and output an indicator signal (SS1) which indicates that receipt of the carrier signal (TS) has been detected.

3. A circuit (8) as claimed in claim 1, wherein the mode change signal generation means (24) have an interrupt signal generation stage (26) which are designed, as a result of receipt of the carrier signal (TS) being detected, to generate an interrupt signal that represents the first mode change signal (MC1).

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4. A circuit (8) as claimed in claim 1, wherein the circuit part (12), with the aid of a second mode change signal (MC2) that can be fed thereto, is designed to change in a switchable manner from the normal-consumption processing mode to the energy-saving processing mode, and wherein the mode change signal generation means (24) are designed to detect a receive status change from receiving the carrier signal (TS) to not receiving the carrier signal (TS) and, upon detection of this receive status change, to generate and output the second mode change signal (MC2).

10 5. A circuit (8) as claimed in claim 4, wherein the mode change signal generation means (24) are designed to output the second mode change signal (MC2) in a manner delayed by a waiting time if, following detection of the receive status change, no new receipt of the carrier signal (TS) can be detected during the waiting time.

20 6. A data carrier (1), comprising a circuit (8) as claimed in any of claims 1 to 5.

7. A method of changing a processing mode of a circuit (8) for a data carrier (1), which circuit (8) has terminals (C1-Cn) for connection to at least part of a contact interface (11) and terminals (Cx, Cy) for connection to at least part of a contactless interface (23), via which contact interface (11) a circuit part (12) of the circuit (8) can be supplied with electrical energy, which circuit part (12) is used, when energy is being supplied via the contact interface (11), to process data signals (DS1, DS2) in a normal-consumption processing mode and in an energy-saving processing mode in which less energy is required than in the normal-consumption processing mode, and which circuit part (12) can be switched into an energy-saving processing mode when energy is being supplied via the contact interface (11) and which circuit part (12) can be switched, with the aid of a first mode change signal (MC1) that can be fed thereto, from the energy-saving processing mode into the normal-consumption processing mode, which method comprises the following method steps, namely

receipt of a carrier signal (TS) via the contactless interface (23) and

detection of the receipt of the carrier signal (TS) and
generation of the first mode change signal (MC1) upon detection of the receipt
of the carrier signal (TS) and
outputting of the generated first mode change signal (MC1) to the circuit part

5 (12).

8. A method as claimed in claim 7, wherein the receipt of the carrier signal (TS)
is detected taking into account the signal frequency of the carrier signal (TS), and the
detection of the receipt of the carrier signal (TS) is indicated by means of an indicator signal
10 (SS1).

9. A method as claimed in claim 7, wherein upon detection of the receipt of the
carrier signal (TS), an interrupt signal that represents the first mode change signal (MC1) is
generated.

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10. A method as claimed in claim 7, wherein a receive status change from
receiving the carrier signal (TS) to not receiving the carrier signal (TS) is detected, and
wherein upon detection of this receive status change a second mode change signal (MC2) is
generated and output to the circuit part (12), and wherein the circuit part (12) upon receiving
20 the second mode change signal (MC2) is switched from the normal-consumption processing
mode to the energy-saving processing mode.

11. A method as claimed in claim 10, wherein the second mode change signal
(MC2) is output in a manner delayed by a waiting time if, following detection of the receive
25 status change, no new receipt of the carrier signal (TS) is detected during the waiting time.